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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,461	08/29/2001	Mitsuya Sato	862.2746 D1	5511

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EXAMINER

KIM, PETER B

ART UNIT PAPER NUMBER

2851

DATE MAILED: 04/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,461	SATO, MITSUYA	
	Examiner	Art Unit	
	Peter B. Kim	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,12 and 25-34 is/are pending in the application.
- 4a) Of the above claim(s) 31-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,12 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/276,834.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3, 4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

This application contains claims 31-35 drawn to an invention nonelected with traverse in Paper No. 7. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Objections

Claims 1 and 12 are objected to because of the following informalities:

Regarding Claims 1, the function of the sensor is unclear. The structural relationship between the sensor and other structure of the apparatus is unclear.

Regarding Claim 12, the function of the setting means is unclear. Also the structural relationship between the setting means and the other structure of the apparatus is unclear..

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 12, 25, 29, and 30 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112,

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first paragraph. In re Hyatt , 708 F.2d 712,>714 - 715,< 218 USPQ 195>, 197< (Fed. Cir. 1983)

A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.

Claims 1 and 12 claim a single means, a sensor and means for setting optical condition, power source condition and cooling conditions, respectively.

The remaining claims, not specifically mentioned, are rejected for incorporating the defects from the base claim by dependency.

The following art rejections of claims are made based on the examiner's best understanding of the claims despite the enablement issues existing in the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima (6,208,406) in view of Nakamura et al. (Nakamura) (6,066,921).

Nakashima discloses in col. 5, lines 21-38, an exposure apparatus and method with a discharge lamp utilized as exposure light. However, Nakashima does not disclose a sensor for recognizing the type of discharge lamp mounted or whether a discharge lamp has been mounted. Nakamura discloses in the abstract, a discharge lamp lighting device which includes a means for detecting installation or non-installation of the discharge lamp. Therefore, it would have been

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obvious to one of ordinary skill in the art at the time of invention to provide the sensor of Nakamura to the invention of Nakashima in order to prevent applying a high voltage when the discharge lamp is not connected which could damage the device as taught be Nakashima in col. 1, lines 40-60.

Claims 12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima in view of Luger (5,600,211).

Nakashima discloses in col. 5, lines 21-38, an exposure apparatus and method with a discharge lamp utilized as exposure light. However, Nakashima does not disclose recognizing and setting power source conditions and cooling conditions based on the recognition. Luger discloses in the abstract, col. 3, lines 1-23 and col. 5, lines 1-59, electronic ballast for discharge lamp with recognizing the type of lamp and setting power source and cooling conditions based on the type of lamp. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the electronic ballast for discharge lamp of Luger to the invention of Nakashima because the discharge lamp of Luger provides efficient dimming capabilities as taught in col. 1, lines 10-58, and the means of controlling illumination is a desirable quality in an exposure apparatus and method.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima in view of Luger as applied to claim 26 above, and further in view of Nakamura et al. (Nakamura) (5,949,198).

The further difference between the claimed invention and the modified Nakashima is the warning in a case where the type of discharge lamp cannot be recognized. Nakamura discloses in col. 1, lines 32-42, a discharge lamp device which issues a warning when the value of voltage

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across the discharge lamp is not within the range of lighting voltage rating. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the invention of Nakamura, in which the lamp with low resistance is placed in the device, the voltage which exceeds the rating is detected and warning signal is issued, to the exposure apparatus of modified Nakashima in order to prevent voltage outside the rating from being applied to the device and damaging the device.

Claim 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima in view of Luger as applied to claim 26 above, and further in view of Nakamura et al.

(Nakamura)(6,066,921).

The further difference between the claimed invention and the modified Nakashima is the warning in a case where no discharge lamp is mounted. Nakamura discloses in the abstract, issuing a warning by disabling the starting circuit when no discharge lamp is installed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the method of warning of Nakamura to the invention of Nakashima in order to prevent applying a high voltage when the discharge lamp is not connected which could damage the device as taught by Nakashima in col. 1, lines 40-60.

Allowable Subject Matter

Claims 29 and 30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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None of the prior art of record teaches or discloses an exposure apparatus with a sensor for detecting or recognizing a type of discharge lamp or whether a discharge lamp is mounted wherein the discharge lamp has a mark or shape capable of being recognized by a sensor.

None of the prior art of record teaches or discloses an exposure apparatus with a means for setting at least one of optical conditions, power source conditions and cooling conditions in dependence upon the type of discharge lamp wherein the discharge lamp has a mark or shape capable of being recognized by a sensor.

Remarks

Applicant argues that Groups I and II are closely related and that claim 29 and 30 link Groups I and II. However, claims 29 and 30 incorporate all the limitation of claims 1 and 12, respectively. As stated in the original restriction requirement, the discharge lamp of claims 31-35 has separate utility from the exposure apparatus and method of Group I.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Kim whose telephone number is (703) 305-0105. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached on (703) 308-2847. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Peter B. Kim
Patent Examiner
April 9, 2003